

Certification of Facsimile Transmission
I hereby certify that this correspondence is being facsimile
transmitted in the Patent and Trademark Office on
April 15, 2003

Linda M. Sivik 44,982
Name of Agent Registration No.
Linda M. Sivik
Signature of Agent

#16
6-9-03
[Signature]

Case JA171

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Continued Prosecution Application of :
Takanori Nambu. :
Serial No. 09/297,591 : Group Art Unit 1616
Filed May 3, 1999 : Examiner Frank I. Choi
Title Hair Styling Composition :

DECLARATION OF TAKANORI NAMBU
UNDER 37 CFR 1.132

I, Takanori Nambu, hereby declare and say the following:

1. I received a B.S. degree from Doshisha University. I have been employed by Procter & Gamble, Far East, Inc. and have worked in Beauty Care Product Development since 1989. My current title is QA Manager .
2. I am the inventor on the above-entitled application and I am familiar with the October 15, 2002 Office Action in that application.
3. The invention in the above-entitled application is directed to a hair styling composition comprising by weight: (a) from about 0.2% to about 5% of an anionic polymer; (b) from about 0.2% to about 5% of a cationic polymer; (c) from about 0.2% to about 5% of an amphoteric polymer; and (d) a solvent; wherein the total of components (a), (b), and (c) is from about 0.6 to about 15%, and wherein the level of the component comprised at the lowest level among components (a), (b), and (c) is at least about 5% of that of the component comprised at the highest level among components (a), (b), and (c).
4. I am familiar and knowledgeable about tests which were performed to compare hair comb index values for compositions representative of the present invention as described above compared to hair comb index values for a composition containing only an amphoteric polymer, an anionic polymer or a cationic polymer, each separately. A hair comb index value measures

adhesive force performance between the values of 1.00 and 0.00. A standard hair styling polymer with high concentrate will result in a hair comb index of 1.00 and water treatment results in a hair comb index of 0.00. The results of this test are shown in Table 1.

Table 1

Composition	Hair Comb Index
K201 (LV-71 ¹ 3.5%, R2913 ² 1.0%, H100 ³ 0.5%)	0.87*
N152 (LV-71 4.0%)	0.72
K143D (R2913 3.0%)	0.78
K143E (H100 1.5%)	0.80

- 1) LV-71: Amphomer LV-71, amphoteric acrylic copolymer. Source: National Starch.
- 2) R2913: Resyn 28-2913, Vinyl Acetate/Crotonic Acid/Vinyl Neodecanoate Copolymer, anionic. Source National Starch.
- 3) H100: Celquar H100, cationic cellulosic polymer. Source: National Starch

* A difference in hair comb index of 0.05 results in a statistical difference.

The data set forth in Table 1 demonstrates that three different polymers, namely an amphoteric, cationic and anionic polymer (K201), at a specific level and ratio, achieved a higher comb index when compared to compositions containing each polymer separately. The combination and specific levels and specific ratio of the three different polymers in K201 provided a statistically significant higher hair comb index when compared to the compositions comprising each polymer separately. N152, K143D and K143E represent compositions containing a commonly known range for each polymer, wherein National Starch shares their formula examples.

The composition with the specific ratio and level combination of the three polymers (K201) achieved a higher comb index that provides higher hair fiber styling effects. Further studies have demonstrated that K201 provides a desired level of flexible film that fingers can play. Therefore, K201 provides a three-polymer ratio and level which forms resin film which is flexible on hair. On the other hand, when concentrates of N152, K143D and K143E are placed on hair, they form brittle films or do not form a film. Therefore, the three polymer combination in K201 can provide more flexible film than each single polymer composition.

According to the data in Table 1, in order to formulate hair styling products with acceptable and/or improved hair comb indexes, viscosity is also important to be distributed. Therefore, each polymer concentrate can vary to supply adequate viscosity. For instance, 3% of H100 gives too high viscosity for styling products in a water formula. It is difficult to add more polymers and achieve an acceptable viscosity for the composition. Therefore, with the three type of polymer mixture, as shown in K201, at the specific levels and ratios, has resulted and contributes to manage acceptable and improved polymer distribution on hair shafts.

5. I further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-captioned patent application or any patent granted thereon.


Takanori Nambu

Apr. 14, 2003
Date

18 USC 1001 Statements or Entries Generally

Except as otherwise provided in this section, whoever, in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States, knowingly and willfully (1) falsifies, conceals, or covers up by any trick, scheme, or device a material fact; (2) makes any materially false, fictitious, or fraudulent statement or representation; or (3) makes or uses any false writing or document knowing the same to contain any materially false, fictitious, or fraudulent statement or entry; shall be fined under this title or imprisoned not more than five years, or both.